

6-2

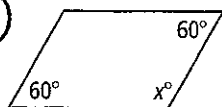
Practice

Form G

Properties of Parallelograms

Find the value of x in each parallelogram.

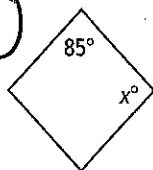
1.



2.



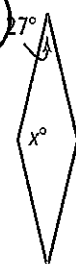
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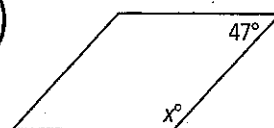
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5.

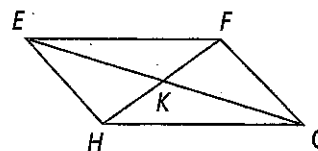


6.



Developing Proof Complete this two-column proof.

7. Given: $\square EFGH$, with diagonals \overline{EG} and \overline{HF}

Prove: $\triangle EFK \cong \triangle GHK$


Statements	Reasons
1) ?	1) Given
2) ?	2) The diagonals of a parallelogram bisect each other.
3) $\overline{EF} \cong \overline{GH}$	3) ?
4) ?	4) ?

Algebra Find the values for x and y in $\square ABCD$.

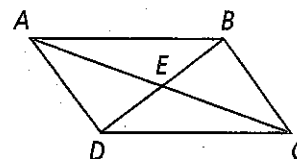
8. $AE = 3x$, $EC = y$, $DE = 4x$, $EB = y + 1$

9. $AE = x + 5$, $EC = y$, $DE = 2x + 3$, $EB = y + 2$

10. $AE = 3x$, $EC = 2y - 2$, $DE = 5x$, $EB = 2y + 2$

11. $AE = 2x$, $EC = y + 4$, $DE = x$, $EB = 2y - 1$

12. $AE = 4x$, $EC = 5y - 2$, $DE = 2x$, $EB = y + 14$



6-2

Practice (continued)

Form G

Properties of Parallelograms

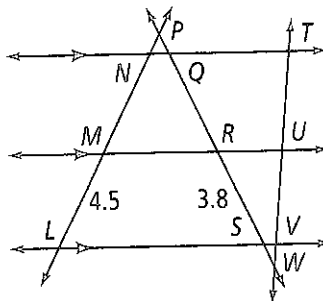
In the figure, $TU = UV$. Find each length.

13. NM

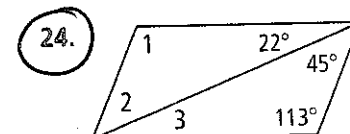
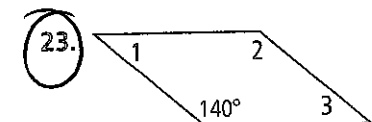
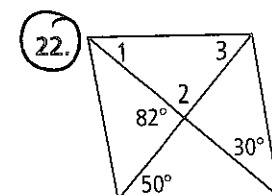
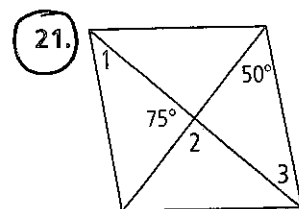
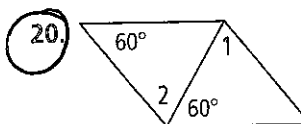
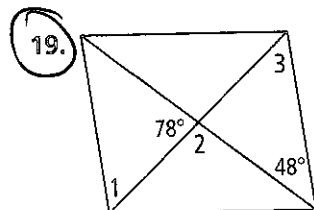
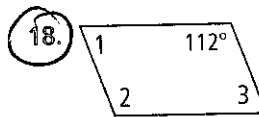
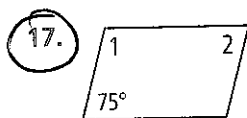
14. QR

15. LN

16. QS



Find the measures of the numbered angles for each parallelogram.



25. **Developing Proof** A rhombus is a parallelogram with four congruent sides. Write a plan for the following proof that uses SSS and a property of parallelograms.

Given: Rhombus $ABCD$ with diagonals \overline{AC} and \overline{BD} intersecting at E

Prove: $\overline{AC} \perp \overline{BD}$

